

CLAIMS

1. A steam valve comprising:

a valve casing, including a main steam inlet portion and a

5 main steam outlet portion;

a first valve device disposed at the main steam inlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

a second valve device disposed at the main steam outlet

10 portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

a strainer housed in the valve casing, for surrounding the valve body of the first valve device, and

15 a closing portion provided in the strainer, for blocking a part of the main steam flow flowing from outside to inside.

2. The steam valve according to Claim 1, wherein the closing portion provided in the strainer is disposed at a position opposite to a side of the main steam outlet.

20

3. The steam valve according to Claim 2, wherein the closing portion is an interruption plate, and wherein the interruption plate is disposed at the position opposite to the side of the main steam outlet and outside the strainer.

25

4. The steam valve according to Claim 2, wherein the closing

portion is the interruption plate, and wherein the interruption plate is disposed at the position opposite to the side of the main steam outlet and inside the strainer.

- 5 5. A steam valve comprising:
 a valve casing, including a main steam inlet portion and a main steam outlet portion;
 a first valve device disposed at the main steam inlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;
 a second valve device disposed at the main steam outlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;
 a strainer housed in the valve casing, for surrounding the valve body of the first valve device; and
 a guide plate provided on the strainer, for creating a main steam peel-off area of a main steam flow flowing from outside to inside of the strainer for surrounding the first valve device.
- 10 15 20 25 6. The steam valve according to Claim 5, wherein the guide plate for creating the main steam peel-off area is provided at the position opposite to the side of the main steam outlet and outside the strainer.
7. A steam valve comprising:
 a valve casing, including a main steam inlet portion and a

main steam outlet portion;

a first valve device disposed at the main steam inlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

5 a second valve device disposed at the main steam outlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

a strainer housed in the valve casing for surrounding the valve body of the first valve device; and

10 a closing plate rotatably provided in the strainer.

8. The steam valve according to Claim 7, wherein the rotatably provided closing plate is disposed at a position facing the main steam inlet in an unsteady operation, and wherein the rotatably provided closing plate is disposed at the position opposite to the side of the main steam outlet in a steady operation.

9. A steam valve comprising:

a valve casing, including a main steam inlet portion and a
20 main steam outlet portion;

a first valve device disposed at the main steam inlet portion side in the valve casing including a valve seat a valve body, a valve rod and a driving device; and

25 a second valve device disposed at the main steam outlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device,

wherein the second valve device is formed into a lateral structure and disposed at a downstream side from the first valve device, while the first valve device is formed into a vertical structure and disposed at an upstream side of the main steam.

5

10. A steam valve comprising:

a valve casing including a main steam inlet at one side and a main steam outlet disposed at another side in an opposite direction and in parallel with the main steam inlet;

10 a strainer provided in the valve casing; and

a closing portion provided in the strainer at a position and in a direction crossing an axial line of each of the main steam inlet and the main steam outlet.

15 11. The steam valve according to Claim 10, wherein the closing portion is an interruption plate, and wherein the interruption plate is disposed outside the strainer.

12. A steam valve comprising:

20 a valve casing including a main steam inlet at one side and a main steam outlet disposed at another side in an opposite direction and in parallel with the main steam inlet;

a strainer provided in the valve casing;

25 a rotatably sliding rotating interruption plate surrounding the strainer; and

a driving device for driving the rotating interruption plate.

13. The steam valve according to Claim 12, wherein the rotating interruption plate is provided with an adjusting stopper for adjusting a rotational transfer region.

5

14. The steam valve according to Claim 12, wherein the rotating interruption plate is provided with a fitting piece for adjusting the rotational transfer region.

10

15. A steam valve comprising:

a valve casing including a main steam inlet disposed at one side and a main steam outlet disposed at another side in an opposite direction and in parallel with the main steam inlet;

a strainer provided in the valve casing;

15

an interruption plate for surrounding the strainer; and

an insertion and pull-out path formed in a valve lid of the valve casing, for freely inserting and pulling-out the interruption plate.

20

16. The steam valve according to Claim 15, wherein the interruption plate is provided with an adjusting stopper for adjusting the rotational transfer region.

25

17. The steam valve according to Claim 15, wherein the interruption plate is provided with a fitting piece for adjusting the rotational transfer region.

18. A steam valve comprising:

a valve casing including a main steam inlet disposed at one side and a main steam outlet disposed at another side in an opposite direction and in parallel with the main steam inlet;

5 a strainer provided in the valve casing; and

an interruption plate provided inside the strainer.

19. The steam valve according to Claim 18, wherein the

interruption portion is a projection piece disposed at an upstream side from a valve seat of the valve casing.

20. The steam valve according to Claim 18, wherein the interruption portion is a projection piece disposed downstream side from a valve seat of the valve casing.

15

21. A steam valve comprising:

a valve casing including a main steam inlet portion and a main steam outlet portion;

20 a first valve device disposed at the main steam inlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

 a second valve device disposed at the main steam outlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

25 a strainer housed in the valve casing for surrounding the valve body of the first valve device;

a closing portion provided in the strainer for blocking a part of a main steam flow flowing from outside to inside; and

a bulkhead provided between the strainer and the valve casing to prevent a collision of the two main steam flows having been
5 separated by and flowing around from the closing portion.

22. The steam valve according to Claim 21, wherein the closing portion provided in the strainer is disposed at a position facing the main steam inlet.

10

23. The steam valve according to Claim 21, wherein the bulkhead is disposed at the position opposite to the side of the closing portion.

15

24. A steam valve comprising:

a valve casing including a main steam inlet portion and a main steam outlet portion;

20 a first valve device disposed at the main steam inlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

a second valve device disposed at the main steam outlet portion side in the valve casing including a valve seat, a valve body, a valve rod and a driving device;

25 a strainer housed in the valve casing for surrounding the valve body of the first valve device;

an interruption plate provided in the strainer for blocking a

part of a main steam flow flowing from outside to inside; and
a bulkhead provided between the strainer and the valve casing
to prevent a collision of the two main steam flows having been
separated by and flowing around from the closing portion.

5

25. The steam valve according to Claim 24, wherein the
interruption plate is disposed outside the strainer and at a position
facing the main steam inlet.

10 26. The steam valve according to Claim 24, wherein the
interruption plate is disposed inside the strainer and at a position
facing the main steam inlet.

27. A steam valve comprising:

15 a valve casing including a main steam inlet portion and a main
steam outlet portion;

a first valve device disposed at the main steam inlet portion
side in the valve casing including a valve seat, a valve body, a valve
rod and a driving device;

20 a second valve device disposed at the main steam outlet
portion side in the valve casing including a valve seat,
a valve body, a valve rod and a driving device;

a strainer housed in the valve casing for surrounding the valve
body of the first valve device;

25 a closing portion provided in the strainer for blocking a part of
a main steam flow flowing from outside to inside;

a bulkhead provided between the strainer and the valve casing to prevent a collision of the two main steam flows having been separated by and flowing around from the closing portion; and
5 a pressure-recovering chamber formed into a shape broadened toward the end, provided in the valve casing and disposed downstream from the strainer provided with the closing portion.

28. A steam valve comprising:

a valve casing including a main steam inlet at one side and a main steam outlet disposed at another side in an opposite direction and in parallel with the main steam inlet;
10 a strainer provided in the valve casing;
a closing portion for blocking a part of a main steam flow flowing from outside to inside; and
15 a bulkhead provided between the strainer and the valve casing to prevent a collision of the two main steam flows having been separated by and flowing around from the closing portion.

29. A steam valve comprising:

a valve casing including a main steam inlet at one side and a main steam outlet disposed at another side in an opposite direction and in parallel with the main steam inlet;
20 a strainer provided in the valve casing;
a guide plate provided at a side facing the main steam inlet of the strainer;
25 a closing portion for blocking a part of the main steam flow

flowing from outside the guide plate to inside thereof; and
a bulkhead provided between the strainer and the valve casing
to prevent a collision of the two main steam flows having been
separated by and flowing around from the closing portion.

5

30. The steam valve according to Claim 29, wherein the guide
plate is formed into a wing-shape.

31. A steam valve comprising:

10 a valve casing including a main steam inlet portion and a main
steam outlet portion;

a first valve device disposed at the main steam inlet portion
side in the valve casing including a valve seat, a valve body, a valve
rod and a driving device;

15 a second valve device disposed at the main steam outlet
portion side in the valve casing including a valve seat, a valve body,
a valve rod and a driving device;

a strainer housed in the valve casing for surrounding the valve
body of the first valve device;

20 a closing portion provided in the strainer for blocking a part or
a main steam flow flowing from outside to inside;

a bulkhead provided between the strainer and the valve casing
to prevent a collision of the two main steam flows having been
separated by and flowing around from the closing portion; and

25 a rack-like flow path formed between the valve casing and the
strainer along a shaft length direction of the valve rod of the first

valve device at a distance.

32. The steam valve according to Claim 31, wherein the rack-like flow path is partitioned with a flow path partitioning plate and
5 the flow path partitioning plate is disposed around an entire outside circumference of the strainer.

33. The steam valve according to Claim 32, wherein the flow path partitioning plate is disposed around an entire circumference
10 of the strainer.

34. The steam valve according to Claim 32, wherein the flow path partitioning plate is disposed around a predetermined part of a circumferential length of the entire circumference of the strainer.